

# CASE

OF

## SLOUGHING OF A MALIGNANT TUMOR

WHICH CONTAINED THE

### FEMORAL VESSELS:

CICATRIZATION OF THE WOUND—DEATH FROM RETURN  
OF THE DISEASE.

By J. A. KINGDON, Esq.

*Read on Thursday, December 13, 1849.*

THE following case is of value as well for its surgical importance as its pathological interest:—

Evan Davies, æt. 47, policeman: a robust man, of florid complexion, who had always enjoyed good health, was admitted into Henry's Ward, October 5, 1849, under the care of Mr. Lawrence. He stated that he first perceived a swelling in his right thigh nine months previous to his admission, and that it appeared a fortnight after the receipt of a kick on the part: during the last ten weeks it had remained stationary, but had grown rapidly before that time. He has taken mercury, and been treated locally with leeches and blisters.

On examination it was found that the tumor was hard, unyielding to the touch, and deeply seated, though apparently (from its free lateral motion) unconnected with the bone; it was situated rather above the middle of the thigh, and rendered the integuments prominent close above the inner border of the sartorius muscle. The femoral vessels were supposed to lie either behind or to the inner side of the tumor, and to be unaffected, as the pulsation of the anterior tibial arteries was felt to be equal in both feet. He could walk five or six miles without inconvenience, but much exercise prevented sleep, by causing numbness of the leg, and some pain in the tumor. He complained likewise of a shooting pain at the inner side of the knee and ankle; and although the tumor was not universally tender, yet

pain was produced by pressure towards the inner side. He was ordered to take *Pil. Saponis Opio*, c. gr. v., that night, and to apply a linseed meal poultice to the tumor.

October 12.—The propriety of an operation was acknowledged by the other surgeons of the hospital in consultation with Mr. Lawrence, although, from the position of the tumor, doubts were entertained regarding the facility of its removal. Pulse 84, regular; tongue clean; bowels open.

13th.—1½ p.m. (Saturday): the patient being fully under the influence of chloroform, Mr. Lawrence made an incision about eight inches in length over the tumor, in the long axis of the limb: the sartorius muscle was exposed and divided, and the more superficial part of the tumor loosened from its connections. In consequence of the deep attachments, a transverse incision became necessary, by which the saphena vein was divided, and immediately compressed above the knee. By these incisions the tumor was fairly exposed, and detached from the surrounding textures for some depth on either side: it presented a smooth, circumscribed outline, and was hard, though elastic to the feel; a slight incision made into its substance was followed by active arterial hæmorrhage. To loosen the mass from its deeper adhesions its distal margin was supported by the left hand of the operator, and an incision made close to its substance; this stroke of the

knife was followed by a sudden and voluminous gush of florid blood, as from a wound of a large artery; the bleeding orifice was soon seized, and secured by ligature; yet much blood was lost. Owing to the deep and obscure attachments of the tumor, its extreme vascularity, and probable malignancy of character, it was deemed inexpedient to pursue the operation farther, as that step would have involved the necessity of tying the femoral vessels close above the morbid growth,—a course which, in the exhausted state of the patient, seemed to be very dangerous. He was removed to bed in a very low state; he vomited much, and complained of pain in the region of the knee, but not in the seat of the disease.

4½ P.M.—Still continues sick, but is free from pain; complains of chilliness, although he is perspiring freely; pulse 90, small and feeble. There has been no hæmorrhage since the operation: the edges of the wound were approximated by sutures, and water dressing applied. An effervescing saline draught was given.

14th.—Slept but little last night on account of sickness: the vomiting and nausea still continue: the wound looks well, and he states himself to be free from pain.

15th.—Sickness again prevented his sleeping; he feels hungry, but can retain no food; there is no perceptible difference in the temperature of the feet; skin warm and soft; pulse 114, small and feeble; tongue pale and moist; bowels not open; there is slight redness around the wound, which is otherwise healthy; the stitches were removed. Ordered, of Scheele's Hydrocyanic Acid *miss.* to be taken in an effervescing draught three times daily.

16th.—Continued vomiting prevented sleep; but in other respects he remains in the same condition as yesterday; the redness of the wound has slightly increased, and suppuration has commenced feebly. Ordered a mustard poultice to the epigastrium, and a bread and water poultice to the wound; to continue the drops.

17th.—He was much relieved by the mustard poultice, and slept for five or six hours last night: he has had but little sickness this morning; the wound looks well, and is suppurating freely; the surface of the tumor, as well as the rest of the wound, is red and granulating.

18th.—Slept tolerably well last night, and is no longer sick: he has taken some bread and cheese and porter (for which he craved) with relish: pulse 112, soft; tongue thinly furred and moist; bowels not open.

20th.—The bowels were freely relieved after a dose of the ordinary house medicine; and in consequence he reports himself as feeling much better to-day. A pint of porter daily.

22nd.—He has not slept well for the last two nights: there is an erythematous blush on the upper and outer side of the thigh, and slight enlargement of the limb below the knee, with pain in the ankle; the wound looks well, and the secretion is copious and puriform; skin hot; pulse 120, small and weak; tongue pale and moist: he has no appetite, and is thirsty.

24th (twelfth day after operation).—Dozes occasionally, yet gets no sound sleep: he moans continually, but not from pain; the redness of the thigh has extended somewhat, and is rather more intense; the cut edges of the wound are looking well, and suppurate healthily; but there is a *black spot in the centre of the tumor*, and the granulations around are pale and indolent.

29th.—The erythema has greatly subsided, and he is now able to sleep comfortably; the leg is less œdematous, and quite free from pain; the wound suppurates freely; *the whole of the tumor* is converted into a black, ragged, and *sloughing mass*, embedded in, and partly overlapped by, the healthy granulating surface of the surrounding parts: it is without sensation.

30th.—He was ordered to take half a drachm of Battley's Liquor Cinchonæ Cordifoliæ three times daily: a mutton chop daily.

November 2nd.—He eats his mutton chop with relish, and says that he feels better; he sleeps well, and is free from pain; the wound looks healthy; a bent probe passes down three inches on either side of the blackened mass; there is a small bed sore over the sacrum.

10th (twenty-eighth day after operation).—For the last week he has been gradually improving: pulse 100, still feeble; tongue clean and moist; bowels open; his appetite is good; the wound discharges healthily; the slough is separating.

At this day's visit Mr. Lawrence removed, without using violence, the mortified tumor, by elevating the mass



with forceps, and separating the more firm attachments with the scissors. On minute inspection, the slough, the size of an ordinary orange, was found to be perforated by a very large artery; and more towards the centre of the mass another canal with less distinct coats lying parallel to it: these, from their size and relative position, were evidently the femoral vessels.\*

12th.—The wound is filling rapidly; his appetite has increased.

21st.—The limb has been rolled from the foot to the groin for the last week, and is much diminished in size: cicatrization advances.

December 13th.—Walks about with the aid of a stick: the wound has nearly closed.

19th.—Discharged well.

On leaving the hospital, he went to his house in the north of Wales; and in a letter received from him a fortnight after his dismissal, he stated that he had borne the journey well, but that he had not left the house since his arrival, in consequence of return of pain in the thigh. Tidings of his death were brought to the hospital at the expiration of six weeks, accompanied with sections of the disease, which had reappeared in his thigh, and shewn itself in the lungs also. A post-mortem examination was made; but as the gentlemen who conducted it were not fully aware of the circumstances of the case, the chest and thigh only were examined. The lungs on both sides were studded with masses more or less considerable of a yellowish-grey substance, which presented the appearance of firm medullary cancer; the diseased mass which had returned in the thigh possessed the same characters as those found in the lungs. It is much to be regretted that neither the condition of the femoral artery, nor the extent or attachments of the tumor, were investigated.

Among the many points of interest presented by the foregoing history the following appear to be more especially worthy of notice:—

*Diagnosis.*—The subject of the disease was a man who had all the appearance of robust health; his face was ruddy, and free from that tawny-yellow tinge that so often accompanies a malignant diathesis. The tumor, situated

rather above the middle of the thigh, did not cause much uneasiness, although lancinating pains were sometimes felt shooting towards the ankle. It was deeply seated, but moveable, hard, and not materially tender when touched: there was no distension of the veins of the skin over it, nor any enlargement of the limb below; the inguinal glands were unaffected.

These symptoms could scarcely be said to indicate a malign nature; the locality of the disease (the bone being unaffected) was not one in which such tumors generally occur, although perhaps the depth might have favoured the supposition; and the lancinating pains were thought to be occasioned by the pressure of the mass upon some branches of the anterior crural nerve. Most patients are apt to ascribe the commencement of their maladies to some special cause; but the value of their theories is often very questionable. In the present instance the origin was attributed to a blow, which (granting the patients to be correct in their assertions) is certainly a very common cause for many local affections; yet there are many surgeons of eminence who consider it a matter of diagnostic importance, more especially in doubtful mammary tumors; for it is well known that in cancer of the breast the patients almost invariably attribute the commencement of the disease to some local violence, while in other affections of the organ such an origin is neither so frequently nor so positively stated.

*Operation.*—From the free lateral mobility of the tumor, and from its seemingly well-defined boundary, no great difficulty was anticipated in its removal, although the neighbourhood demanded caution. But when a free exposure of its anterior surfaces was made, and small nodules of disease were found stretching up towards the crural ring, and when the depth of its attachment was ascertained by dissection, then was the severity of the undertaking in some measure appreciated. The case was not even at that time thought to be desperate; and, although it was considered somewhat strange that the femoral vessels had not become apparent, still further was it from the mind of the operator to conceive that the pulseless mass which he was handling and dissecting out was permeated by them. When, however, at length this truth was discovered,

\* The preparation is in the Museum attached to the Hospital.

there remained but one alternative,—to tie the iliac artery, and then extirpate the disease,—or leave the patient as he then was. The operation had lasted about the half of an hour, and the patient had lost a considerable quantity of blood; it was without much hesitation, therefore, that Mr. Lawrence stayed his hand.

*Sloughing of tumor.*—The prognosis of the many was decidedly adverse to the patient's well-doing; and certainly so happy a termination as the sloughing of the disease was not anticipated; for, under the ordinary circumstances of a cancerous growth, such a result is by no means frequent, although occasional instances are to be met with in the works of surgical writers. Abernethy\* relates the case of a man, aged forty, who was affected with medullary sarcoma of the glands in the left groin; the integuments ulcerated over the tumor, and the mass was separated by sloughing; profuse hæmorrhage ensued, which was stopped by pressure; granulations sprang up, and the wound cicatrized. A similar occurrence happened soon after in the opposite groin, but before the cicatrization was complete the patient died exhausted. Travers† speaks of more than one case where cicatrization has been complete after the sloughing of cancerous tumors; and relates the case of a lady who remained well for several years after the occurrence.

Boyer‡ gives the case of a Russian princess, who, after having consulted most of the eminent surgeons of Europe for cancer of the breast, at last tried the mineral waters of Barèges as an external application. While under this treatment mortification ensued in the tumor, which was of a large size, and by this process it was entirely separated. The very extensive wound healed completely; but shortly after cancerous tubercles were developed in great number in the vicinity of the cicatrix, and the patient died at Paris eight months after the event, which had inspired her with the hope of a radical cure.

Bérard§ mentions briefly the case of a woman, in which cicatrization of the ulcer took place after sloughing of the tumor, although the system was gene-

rally affected, and cancer occupied the internal organs. He relates another case also, where sloughing took place in a large cancerous tumor situated in the thigh of a woman; but that was speedily followed by death.

Richerand,\* too, affords an example of cicatrization after the sloughing of a cancerous tumor:—A woman, aged 48, of strong constitution, was admitted into the Hospital of St. Louis with a cancerous breast. The very hard mass softened, a violent inflammation of the skin and cellular tissue covering the tumor was set up, mortification followed, and the whole mass was separated: cicatrization was complete in less than two months.

Sir Everard Home, and indeed most surgical writers who have treated of cancer, mention similar cases: but of all that have been related the foregoing are perhaps the most complete.

In the museum attached to this hospital there are two specimens of cancerous tumors which were separated by sloughing.† The one is the case of a woman 47 years of age, from whom a cancerous breast was removed by operation. The wound healed readily, and remained well for nearly three months; then, however, a tumor began to grow under the cicatrix, which rapidly increased, and was separated by sloughing at the end of three months. She died exhausted nine months after the operation. Hard white tumors of cancerous appearance were found in the lungs.

The other specimen‡ is from a woman 40 years old, in the middle of whose back a large brain-like medullary tumor was situated. The integuments sloughed over it at the end of four months; and, as she was endeavouring to raise herself in bed, the whole mass fell out through the slough: it was followed by profuse hæmorrhage, and she shortly after died.

Now in all these examples the sloughing was spontaneous,—i. e., it occurred as a process of the disease, and was not induced by any medical interference; therefore he argued that their analogy to the case related above was not good. But it must at the same time be remembered that the tumor did not at first present signs of death: it was, on the

\* Classification of Tumors, p. 60.

† Med.-Chir. Trans. vol. xv.

‡ Mal. Chir. t. vii. p. 191.

§ Dict. de Med., art. Cancer.

\* No-ogr. Chir. t. i. p. 516.

† Cat. of St. Barth. Hospital, Anat. Museum, vol. i. series 34, spec. 25.

‡ Ibid, series 35, spec. 60.

contrary, covered with healthy granulations up to the twelfth day after the operation, and, as was afterwards discovered, contained within itself the very source of its existence.

The mortified mass was so thoroughly disorganized that, under the microscope, little else could be discovered than a crowd of molecules and granules, which had the peculiar appearance of oil-globules, and an occasional cluster of such shining particles held together by an enveloping membrane. Similar appearances have been figured by Professor Bennett, of Edinburgh,\* and considered by him to be degenerated or disintegrated cancer cells, identical with "fatty degeneration," and an evidence of decay. Such, too, appears to be Paget's† interpretation of Rokitansky's "saponifica-

tion of cancer." Now Rokitansky holds this to be one of the means whereby a spontaneous *cure* of the disease may be effected; whereas most surgical writers on the subject look upon it as an unfavourable symptom, and one that is rapidly followed by the development of the disease in internal organs. Ledran,\* Rouzet,† Richerand, and Boyer, entertain this view, and their opinions are furthered by the present case.

To discuss every point of interest in the case—the position of the tumor, the cause of the sloughing, the process by which rather more than an inch of the femoral artery was separated without hæmorrhage, and the rest—would be no light undertaking, nor one in accordance with the object of this paper; so that upon the mere record of the facts must depend its value.

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\* On Cancerous and Cancroid Growths, figs. 16, 41, 48.

† Lectures on Nutrition, &c. MED. GAZ.

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\* Tr. des Opér. de Chir.

† Rech. sur le Cancer.

